

REMARKS/ARGUMENTS

Claims 1-27 have been resubmitted. Claims 6, 10, 18 and 20-24 have been amended.

The Examiner has rejected Claims 1-5 and 26-27 under 35 U.S.C. §102(b) as being anticipated by Tissier et al. (U.S. Patent No. 5,677,832). The Examiner has also rejected Claims 14-19 under 35 U.S.C. §103(a) as being unpatentable over Tissier et al. in combination with Schauder (U.S. Patent No. 5,329,221). Claims 6-13 and 20-25 were objected to as being dependent upon a rejected base claim.

Examiner Interview

During a telephone interview on May 27, 2004 the §102 rejection with regard to the Tissier patent was discussed. Examiner Patel stated that there was some confusion because it was unclear from Figure 2 how the active filter 20 was connected to the power bus 14. He requested that Figure 2 be amended, or a new figure added, showing that connection before he reconsidered the §102 rejection. Applicants have addressed these concerns below.

Drawings

Applicants have amended Figure 2 to clarify the connection between the active filter 20 and the power bus 14. Basis for the amendment may be found, for example, on page 4, lines 11-14 of the Specification.

Applicants have also amended Figure 3 to correct a mislabeled element, specifically, element 62 has been replaced by element 68. Basis for the

amendment may be found, for example, on page 5, lines 11-12 of the Specification.

Tissier et al.

The Tissier reference relates to an active filter for compensation of polluting harmonics on an electricity distribution network comprising a source of energy, a bridge converter connected between the energy source and the network, a control means for controlling the bridge converter in order to compensate for the polluting harmonics. The control means functions by sensing currents on the network through current sensors 23 (Figure 3), determining the polluting harmonics and controlling the bridge converter to inject harmonics into the network to compensate for the polluting harmonics. The control means of the active filter of the Tissier reference further has a correction circuit to compare the harmonics being injected by the bridge converter to those of the network. The correction system senses the injected current through current sensors 24 (Figure 3) and, after manipulation of the current to obtain the harmonics, compares them to the harmonic currents detected on the network. Differences between the two can be used to further adjust the injected harmonic currents. Column 5, lines 41-67.

In contrast, independent Claim 1 of the present invention recites a power distribution system including an ac source connected to a power bus, a capacitor bank shunt-connected to the power bus, and an active filter shunt-connected to the power bus. The active filter includes an inverter, an inverter control and current sensors. Each current sensor senses current flowing through a corresponding capacitor of the capacitor bank. In response to the current sensors, the inverter control controls the inverter to inject harmonic currents into the power bus. Likewise, independent Claim 26 is directed toward a method of using an inverter to filter harmonic currents on a power bus having

a capacitor bank shunt-connected across the power bus in which the currents flowing through the capacitors of the capacitor bank and controlling the inverter to inject harmonic currents in response to the currents flowing through the capacitors. Because currents are sensed in the capacitor banks, instead of on the network as in the Tissier reference, the sensing of lower currents allows for greater resolution of the harmonic currents.

Applicants thus submit that the present invention is not anticipated by the Tissier reference. For a reference to anticipate a claim, it must disclose every element of the claim. The Tissier reference does not disclose, teach or suggest that each current sensor senses current flowing through a corresponding capacitor of a capacitor bank and that the inverter control, in response to the current sensors, controls the inverter to inject harmonic currents into the power bus, as in independent Claims 1 and 26 of the present invention. Applicants therefore respectfully request withdrawal of the rejection.

Schauder

The Schauder reference relates to an advanced static volt ampere reactive compensator (ASVC) system for coupling with and compensating a transmission line of a power system including an ASVC controller.

In contrast to the present invention of amended Claim 18 the Schauder reference does not disclose, teach or suggest an active filter with a means for generating a plurality of different voltage commands where the voltage commands are in response to the voltage of a capacitor bank. Furthermore, in contrast to the present invention of Claim 19, the reference does not disclose teach or suggest an active filter having a plurality of control loops where each loop corresponds to a different multiple of capacitor bank Park Vector angle.

Finally, the Schauder reference does not cure the deficiencies of the Tissier reference as discussed above.

Applicants thus submit that the Schauder reference, either alone or in combination with the Tissier reference, does not teach or suggest the present claimed invention and therefore respectfully request withdrawal of the rejection.

Objected Claims

Claims 6-13 and 20-25 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants have rewritten the claims in independent form including all the limitations of the base claim and any intervening claims. Applicants thus submit that Claims 6-13 and 20-25 are directed toward allowable subject matter.

CONCLUSION

Applicants would like to thank the Examiner for courtesies extended to Applicants' representatives during the telephone interview of May 27, 2004. In such interview, the Examiner expressed confusion with Figure 2 and requested that a revised Figure 2 or new figure be submitted. In response to the Examiner's request a revised Figure 2 has been submitted.

Reconsideration and withdrawal of the Office Action with respect to Claims 1-27 is requested.

In the event the examiner wishes to discuss any aspect of this response, please contact the attorney at the telephone number identified below.

Respectfully submitted,

By:



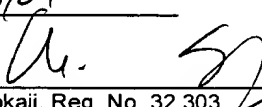
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